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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/781,235	02/13/2001	Naoki Matsui	54024-027	7943

-7590-08/27/2004-

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EXAMINER

ELDER, JEREMY RYAN

ART UNIT	PAPER NUMBER
2612	

DATE MAILED: 08/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/781,235

Applicant(s)

MATSUI, NAOKI

Examiner

Jeremy R. Elder

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "41" has been used to designate both "CPU" and "lamp" on page 7, lines 8 and 11. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheets should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference character(s) mentioned in the description: "32c" does not appear in figures 1 or 2. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page

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header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-4, 11, 12 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakao et al.
5. As for claims 1 and 15, Nakao et al. show in fig. 45 and states in col. 63, lines 35-40 that an image pickup device (camera 601u) is used.

They further show in fig. 45 and explain in col. 39, lines 40-46 of a direction-changing element (mirror 602b). They further show in fig. 45 and explain in col. 39, line 65 to col. 40, line 10 that the images are acquired by the cameras and sent to respective image acquisition mechanisms (502u and 502d). From there the

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respective image compositing mechanisms (503u and 503d) combine the images to create 180-degree images, which are then combined in the Image Update Mechanism 504.

Nakao et al. discloses in col. 51, lines 66 – col. 52, line 1, the image memory 008 is of sufficient size to store the composite image and a number of partial images.

Figure 31 shows extracted elements 412 and 413 output to view on display mechanism 012 to which as described in col. 39, lines 54-62 that it is possible to selectively display only a part of the composite image in response to the directive of the user.

6. As for claim 2, Nakao et al. states in col. 64, lines 6-10 that the updating of the composite image is carried out by compositing mechanism 503u.
7. As for claim 3, Nakao et al. states in col. 64, lines 56-60 that when mirror 602b is rotating at constant speed, that images are acquired at standard intervals.
8. As for claim 4, Nakao et al. states in col. 64, lines 41-44 that Processing Mechanism 500 normally controls the speed so that direction-changing means (mirror 602b) rotates at a constant speed. Nakao et al. Further explains that the Processing Mechanism is capable of freely setting the rotational speed.

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9. As for claim 11, Nakao et al. shows in fig. 45 and states in col. 63, lines 35-40 that two cameras are used (601u and 601d). They further show in fig. 45 and explain in col. 39, line 65 to col. 40, line 10 that the images are acquired by the cameras and sent to respective image acquisition mechanisms (502u and 502d). From there the respective image compositing mechanisms (503u and 503d) combine the images to create 180-degree images, which are then combined in the Image Update Mechanism 504.
10. As for claim 12, Nakao et al. shows in fig. 31 and states in col. 40, lines 7-10 that the region (412 or 413) is selected by the user and the extraction is viewed on monitor 012.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
12. Claim 5, 8, 9 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakao et al. in view of Whiting et al.

13. As for claims 5 and 16, Nakao et al. disclose a rotating camera 005 with a direction-changing element (camera movement mechanism 014).

Whiting et al. disclose a panoramic camera that provides a live video of 360 degrees and monitors for viewing the images. In figure 1, Whiting shows the monitors 14 for viewing an output of video data from server 12. Also in col. 3, lines 37-41, Whiting et al. describe their invention as able to provide a moving record or a live broadcast. Whiting et al. also describe in co. 7, lines 49-67 that the user selects a viewing angle by using mouse 44. It is understood that the angle does not change unless further requests are made.

It would have been obvious to one of ordinary skill in the art at the time of invention to use a panoramic camera of Nakao et al. pointing in one direction for picking up a live image of which can be output to a viewing monitor of Whiting et al. for the benefit of creating a live video feed from a panoramic video source.

14. As for claim 8, Nakao et al. shows in fig. 45 and states in col. 63, lines 35-40 that two cameras are used (601u and 601d), but do not disclose the use of their cameras for live image output.

Whiting et al. disclose single camera panoramic camera system.

Whiting et al. disclose in col. 3 lines 38-41 that the system is capable of live broadcast.

It would have been obvious to one of ordinary skill in the art at the time of invention to use the multiple cameras of Nakao et al. to pickup live video as in Whiting et al. for the benefit of allowing the user to watch live video feeds.

15. As for claim 9, as stated Nakao et al. shows in fig. 45 and states in col. 63, lines 35-40 that two cameras are used (601u and 601d), but do not disclose the use of their cameras for live image output.

Whiting et al. disclose single camera panoramic camera system.

Whiting et al. disclose in col. 3 lines 38-41 that if the user does not change conditions (no request), that he or she will be able to view a live broadcast.

It would have been obvious to one of ordinary skill in the art at the time of invention to have an image sensing means of Whiting et al. directed in one direction to pick up a live video for the benefit of allowing the user to watch live video feeds.

16. Claims 6, 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakao et al. in view of May et al. and Whiting et al.

Nakao et al. do not disclose the use of an element for zoom magnification.

May et al. teaches of a single camera panoramic camera system with a zoom lens (26 in fig. 1). Also May et al. teaches in col. 5, lines 56-65 that a series of images is generated for creating a composite image.

Niether Nakao et al. nor May et al. disclose any details of selecting a piece of a composite image or changing the zoom of the extracted piece.

Whiting et al. disclose in col. 3 lines 37-47 that the user can zoom images at will. Shown in fig. 1 and described in col. 6, lines 60-65, the user then can use mouse 44 to control the image viewed on monitor 14 by selecting a viewing window 46 (of fig. 5) to display on the monitor 14 and manipulate the image as stated in col. 3, lines 45-47.

It would have been obvious to one of ordinary skill in the art at the time of invention to use the zoom of May et al. on the panoramic camera of Nakao et al. to create panoramic pictures of various zoom magnifications (including maximum zoom) while using the control of Whiting et al. to select extracted images from a plurality of composite images with various zoom magnifications for the benefit of allowing the user to closely view images by having the ability to view higher zoom magnified images.

17. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakao et al. and Whiting et al. and further in view of Cheng et al.

Nakao et al. and Whiting et al. do not disclose combining the live image information with said composite information.

Cheng et al. disclose a method for displaying panoramas with streaming video.

Cheng et al. disclose in col. 6, lines 9-15, that a video stream can be overlayed onto a still panoramic image.

It would have been obvious to one of ordinary skill in the art at the time of invention to use the cameras of Nakao et al. to create a panoramic image with the live video ability of Whiting et al. in the invention of Cheng et al. to overlay the video onto a still panoramic image for the benefit of reducing bandwidth.

18. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakao et al. and further in view of Okino et al.

Nakao et al. do not disclose the use of a zoom lens or any components thereof.

Okino et al. discloses an image pickup device that uses a piezoelectric element 5 (conversion element) that compares voltages to determine the movement of a focus driver 2 (driving member), which in turn moves the focus lens 1.

It would have been obvious to one of ordinary skill in the art at the time of invention to use a focus lens in the invention of Okino et al. to create a focusing system driven by piezoelectric elements for the benefit of omitting motors to make the invention lighter and more energy efficient.

19. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakao et al. and Okino et al. and further in view of Parulski et al.

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Neither Nakao et al. nor Okino et al. disclose the zoom lens being driven by piezoelectric elements.

However, Parulski et al. disclose in co. 7, lines 2-5 that a zoom lens can be driven by a piezoelectric element.

It would have been obvious to one of ordinary skill in the art at the time of invention to use a zoom lens in combination with a focus lens in the invention of Okino et al. to create a zoom and focus combination system driven by piezoelectric elements for the benefit of omitting motors to make the invention lighter and more energy efficient.

Conclusion

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy R. Elder whose telephone number is (703) 305-4693. The examiner can normally be reached on M-F 800-430.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R. Garber can be reached on (703) 305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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